

A Guide for Sponsors of Division Applications

Version 1

**Submarine Directorate
IRM Support Services**

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1. Executive Summary

Initiatives external to NAVSEA and Team Submarine such as Task Force Web and the Navy/Marine Corps Intranet (NMCI) are forcing changes in the manner in which IT acquisition must be conducted. In addition, the complex nature of application development and implementation further complicate the task of ensuring cost effective business systems for Team Submarine. This environment requires substantial discipline in processes and procedures to ensure the most effective development and implementation of Team Submarine acquired IT systems. This document provides an overview of the Team Submarine process to be used by Program Managers (sponsors) during the acquisition, development and/or modification of division applications.

Team Submarine application sponsors may also find this document useful in technical negotiations with developers, helping to define contract proposals and delivery requirements.

The role of SEA 92L6 in this process is to facilitate the communication process between the sponsor and developer, to lay out a comprehensive guide for the development process and life cycle support for the division application, to provide templates for support documentation, and to act as an interface between SEA 00I and the sponsor/developer team.

2. Purpose

This document provides guidance to Team Submarine Program Managers (sponsors), which should be followed during the acquisition, development and/or modification of division applications in both the current and the NMCI environments. Included in this guidance is: (1) coordination required between sponsors and SEA92L6 “The Team Submarine Application and Integration Team”; (2) the process to be used to ensure full compliance with current and NMCI architectures; and (3) the method for obtaining System Security Authorization Accreditation. Detailed information on the current and NMCI computing environments in Team Submarine is provided in the companion document “Guide for Developers of Division Applications”. It includes network architecture, desktop configuration, etc.

Finally, an outline in the form of a checklist has been provided to facilitate tracking of tasks necessary to complete the designated process.

Important Note: Applications that do not work with Microsoft Windows 2000 and/or in the NMCI environment will have to be modified or retired when Team Submarine migrates to NMCI.

3. Team Submarine Application and Integration Team (SEA92L6)

Team Submarine Operating Instruction XXXX states that “All Team Submarine Program Offices and Managers shall contact the Team Submarine BIE and Team Submarine Application and Integration Team prior to the start of any system/application acquisition, development, upgrade, or implementation for guidance and assistance with their efforts.”

As the lead for the Team Submarine Application and Integration Team, SEA92L6, prepares and maintains procedures for developing, acquiring/upgrading and implementing IT solutions in Team Submarine, tailored to Team Submarine's business needs. SEA92L6 provides a trained and qualified technical point of contact (TPOC) who will assist in ensuring IT acquisitions/upgrades meet NAVSEA policies, procedures, and architectural and information assurance constraints.

The SEA 92L6 TPOC will provide the following services to the application sponsor and developer:

- Ensure that requirements analysis is performed and documented.
- Work with SEA 00I to determine whether any existing application within NAVSEA meets the requirements of the proposed new or modified application, preventing duplication of effort within NAVSEA.
- Provide the sponsors and developers with our Sponsors and Developers Guide documentation, including a joint sponsor/developer checklist.
- Provide the latest information on NAVSEA/NMCI technical specifications and requirements.
- Assist with application testing. This will include:
 - Acceptance testing, to ensure all the specified requirements are fulfilled and that the application works in our current environment.
 - NMCI pre-certification testing, to ensure the application will work in the NMCI environment.
 - Submission for NMCI certification testing. Most NMCI certification testing is done at an NMCI Internet Strike Force (ISF) lab. The TPOC will ensure all necessary documentation is prepared prior to the test.
 - Provide requisite information on the application to SEA00I, in support of the Command's master application database.

4. Application Development Procedure

During the initial meeting(s) between the sponsor and the TPOC to discuss the proposed application development or enhancement, a formal plan for the development will be worked out. The details of the development plan will vary according to the level of complexity of the development effort. The TPOC will provide templates for many of the deliverables in the development plan, and can assist in filling them out. Refer to Appendix B for a complete list of required documentation and the location of appropriate templates.

In General, the following items should be included in the plan, and be turned over as documentation to the TPOC who will also help to determine which items are necessary:

- Checklist
- A detailed POAM
- Requirements analysis

- Functional analysis
- Use-case analysis
- List of software development tools used
- Licenses and documentation for development tools, COTS and/or GOTS used in the application
- Online help
- User manual
- Source code
- System Security Authorization Agreement
- Application installation program
- Acceptance test scripts
- NMCI certification test scripts

NOTE: NMCI is intended to make the Navy and Marine Corps more efficient and productive by providing data, video and voice communications to link 350,000 workstations throughout the department. The proposal will comply with Section 508 of the Rehabilitation Act, which states requires that Federal agencies' electronic and information technology is accessible to people with disabilities.

5. The Application Approval Process

Program Managers that sponsor new application development or modification of existing applications for the Team Submarine network must notify SEA 92L6 of their intentions prior to the start of the development process. Following this process ensures that your developers have access to all Team Submarine and SEA 00I development requirements up front, preventing costly rework and allows SEA 92L6 to:

- Allocate appropriate SEA 92L6 resources to the project,
- Coordinate and resolve application development issues such as architectural constraints and information assurance with SEA 00I (if appropriate),
- Define the documentation which must be developed prior to full-scale implementation,
- Provide computing environment guidelines,
- Plan for the support required when the application is ready for testing and deployment.

SEA 92L6 will provide developers information on how to tailor their design to the NMCI computing environment and a list of requirements for application acceptance. As IT resource managers SEA 92L6 must be notified, even when the proposal is to extend the functionality of an existing application. SEA 92L6 also has access to all current policy requirements which will be made available to the sponsor/developer upon notification.

5.1. Application Definitions

An “application” is defined as a computer-based program that is used by a single user, a group of users, a division or office, or any other organization in Team Submarine, including those shared with field activities and/or contractors and, which meets at least one of the following:

- Web-hosted applications
- Client-server systems using Access on Visual Basic front ends
- Network-hosted or stand-alone applications made up of one or more EXE files
- Microsoft Access databases which have a Visual Basic front-end
- Any Microsoft Office program (Word, Outlook, etc.) used to automate a task with custom computer code or third-party tools
- Obsolete DOS programs made up of one or more EXE or COM files

Examples of systems, which are **not** considered to be applications for the purpose of this document:

- Simple Microsoft Access databases which use no custom coding and require no maintenance or support
- A simple Microsoft Word macro used by a small number of people within a single office
- Web pages written with plain HTML (no XML, Java, JavaScript, etc)

5.2. Required Development Documentation

SEA 92L6 will provide expertise and knowledge to assist with IT project planning, and can provide templates for much of the documentation that will be needed. Key documentation which should be developed as part of each initiative includes:

- Functional analysis
- Requirements analysis (including a list of all user groups and their locations, especially those outside of the Team Submarine LAN)
- Concept of Operations (CONOPS)
- Develop POAM (including Preliminary Design Reviews [PDR] Critical Design Reviews [CDR], etc)
- System Security Authorization Agreement (SSAA)

SEA 92L6 will provide detailed information to you and your developers on such issues as architectural constraints and information assurance.

6. Application Development Requirements Overview

6.1. Required Development Platform

Task Force Web (established by VCNO in December 2000) mandates that all Navy applications will be web-based by 2004. Because of the Navy's strong commitment to web-based applications, deployment of only very small applications that are not web-based will be allowed.

6.2. Security

An SSAA must be completed for all applications, and updated whenever a significant change is made to the application or its environment. SSAAs are submitted to the Information Assurance division in SEA 00I for approval. See Appendix B for information about the SSAA template.

6.3. Workstation Configuration Requirements

The current situation imposes some architectural constraints, which can be navigated. Under NMCI we are anticipating a locked down desktop. This would mean that applications may not be allowed to install any files or make any changes to the Windows Registry on individual PCs without NMCI certification testing and approval. This would apply to any application that does not go through the NAVSEA integration phase. In short, no ad hoc installs on a PC would be permitted.

6.4. Maintenance and Upgrades

In almost all situations, the developer or application sponsor is responsible for maintaining division applications. Currently, if the application resides on a supported NAVSEA file server, SEA 00I will provide daily backup, UPS protection, and virus protection. The NAVSEA Help Desk will help users start their application, and diagnose infrastructure problems, such as printing or Internet access issues. Once the fault is determined to be internal to the program, the sponsor or developer must provide appropriate levels of support to resolve the issue.

NMCI will provide backups, UPS and virus protection and upgrades for NMCI hosted software, hardware, etc. Upgrades to all legacy applications will be the responsibility of the sponsor and/or developer.

6.5. NMCI compliance

All division applications must be certified by the Information Strike Force (ISF – the NMCI contractor team) before being allowed in the NMCI architecture and environment. SEA 92L6 will provide the necessary directions and forms for this certification.

6.6. Section 508 Compliance

NMCI is intended to make the Navy and Marine Corps more efficient and productive by providing data, video and voice communications to link 350,000 workstations throughout the department. The proposal will comply with Section 508 of the Rehabilitation Act, which requires that Federal agencies' electronic and information technology is accessible to people with disabilities.

6.7. Development and Testing

While SEA 92L6 will provide technical oversight and management for all development tasks, the actual development and testing of the application is the responsibility of the developer and the sponsor. Team Submarine will assist in the final testing of an application before it goes "live" to the users. Such testing is limited to verifying compliance with the requirements in section 4 of this document. Applications should be fully tested before being introduced into the Team

Submarine environment. There should be no obvious faults upon delivery. The application should be ready for acceptance and integration testing.

All applications will be required to undergo a certification process. This process is intended to certify that the application will operate correctly in the NMCI basic load (Gold Disk) environment, that it does not adversely impact other NMCI applications, and that it is compliant with all security requirements imposed by the DoN.

Sponsors are encouraged to utilize the pre-certification process. The ISF will assist the sponsor in the processes for pre-certifications:

- Processes and criteria for pre-certification/certification of applications;
- Facilities for testing with sufficient testing cells;
- System administration support for the testing operations; and
- Advisory assistance in the execution of the certification tests.

An example of the test scenario for participation would be:

- The ISF would contact the application owner and they would agree to a script development process and participation in the testing effort by the sponsor.
- The application sponsor would provide requirements for the application to the ISF.
- The ISF would create test scripts (with sponsor participation) and conduct the tests in ISF labs.
- The application sponsor would approve the output of those ISF tests and work with the ISF on any issues that developed during the testing.

6.8. Product Documentation

All division application developers or their sponsors must submit complete documentation for their products. Appropriate documentation specifications and available templates are referred to in Appendix B of this document.

The Developer must provide Team Submarine with sufficient information to support the installation, deployment, and maintenance of the division application. In addition, SEA 00I and Team Submarine requires contact information from developers, and technical information about any third-party hardware and software that the product may use. SEA 00I will manage this information at the corporate level.

6.9. User Training

The application developer or sponsor is responsible for training their user community. The sponsor is responsible for providing necessary training handouts and other user documentation.

6.10. End-User Support

End user support should be negotiated with SEA 00I. In most instances, SEA 00I will accept responsibility for application launching, printing, saving, and closing. SEA 00I is also responsible for any standard application or service that the division application may use, such as Microsoft Word, or TCP/IP. Developers or sponsors are responsible for all other operational support.

SEA 92L6 will assist in clearly defining areas of responsibility of SEA 00I.

Appendix A – NMCI

A.1 List of software included in NMCI Gold Disk

This list is current as of 1 May, 2001. It was provided by the NAVSEA HQ NMCI office; the most recent Gold Disk contents can be found at:

http://www.eds.com/nmci/gold_disk_contents_11.doc

- Internet Explorer 5.5 (NOTE: Internet Explorer will be default browser. The home page will be http://homeport and the proxy is port 80).
- Radia Client
- Netscape Communicator 4.76
- Windows Media Player 7
- Real Player 8
- WinZip 8
- Adobe Acrobat Viewer
- Remote Management Software
- Smart Card Support
- WRQ Reflections
 - TN3270 Client - IP 3270 Client
 - VT100 Emulation
 - X-Terminal
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Access
- Microsoft Outlook 2000
- Plugins
 - Macromedia Shockwave v 8.0
 - Flash Player 5.0
 - Apple QuickTime Movie and Audio Viewer v4.12
 - IPIX v6, 2,0,5
- Norton AV CE 7.5
- Axent Intruder Alert
- Axent Enterprise System Management
- the Tivoli agent

Important Note: Current NMCI plans show Microsoft Project will be provided on an as needed, case-by-case basis for individual users. Project IS NOT part of the standard applications provided through NMCI.

A.2 NMCI URLs



TEAMSUB	http://teamsub.navsea.navy.mil/nmci
EDS	http://www.eds.com/nmci/
NAVSEA	http://nmci.navsea.navy.mil
NAVAIR	https://nmci.navair.navy.mil/
SPAWAR	https://nmci.spawar.navy.mil

Appendix B – Requirements Checklist

NOTE: Templates of documents may be found on the TEAMSUB website

Required	Not required	Category	Task Description	Validated by:
		Tasks (SEA 92L6)		
			Provide Sponsors with Team Submarine Operating Instruction Document	
			Provide Guides for Sponsors and Developers of Division Applications	
			Review development plan and allocate appropriate SEA 92L6 resources	
			Assign a technical point of contact (TPOC) for the project	
		Tasks (TPOC, Sponsor, Developer)		
			Chart progress through regularly scheduled status meetings with developer	
			Perform acceptance testing	
			Perform pre-certification testing	
			Perform post-certification testing	
		Tasks (TPOC and SEA 92L6 Team)		
			Check new requirements against existing requirements on file with SEA 00I	
			Establish formal plan for development	
			Determine milestones	
			Provide project checklist	
			Provide developer with current, accurate NMCI prerequisites	
			Provide architectural constraints and information assurance documentation	
			Provide templates for necessary documentation	
			Provide a repository for completed documentation	

Required	Not required	Category	Task Description	Validated by:
			Provide support for testing and deployment phase	
			Determine network and workstation configuration requirements	
			Examine and test new hardware	
		Tasks (Sponsor)		
			Notify SEA 92L6 prior to starting the development process	
			Sponsor/Developer kick off meeting to determine requirements	
			Establish justification for installation, deployment and maintenance of the proposed division application	
			Acquire source code and licenses	
			Develop user groups and permissions	
			Determine user training and support needs	
		Tasks (Developer)		
			Develop application in accordance with requirements and specifications	
			Devise appropriate testing environment and procedures	
			Develop training plan and materials	
			Provide titles and transfer warranties to SEA 92L6 for all equipment provided as part of the contract	
		Documentation		
			Detailed Plan Of Action and Milestones (POAM) including PDRs and CDRs	
			Concept of Operations (CONOPS)	
			NMCI Information Strike Force (ISF) certification	
			Requirements analysis	
			Functional analysis	
			Use-case analysis	
			Provide documentation for printing, back-up, virus protection, and Internet access requirements	

Required	Not required	Category	Task Description	Validated by:
			List of software development tools used	
			List of platforms and versions used	
			Licenses and documentation for development tools, Commercial Off-The-Shelf (COTS) and/or Government Off-The-Shelf (GOTS) used in the application	
			Online help	
			User manual/documentation, if any	
			Source code burned onto a CD	
			System Security Authorization Agreement (SSAA)	
			Application installation program	
			Application installation support documentation	
			Acceptance test scripts	
			NMCI certification test scripts	



Appendix C – Definitions of Terms

Navy/Marine-Corp Intranet (NMCI) - is a comprehensive, enterprise-wide initiative that will make the full range of network-based information services available to Sailors and Marines. NMCI will provide the Navy and Marine Corps with secure, universal access to integrated voice, video and data communications, pier-side connectivity to Navy vessels in port, and will link more than 360,000 desktops.

TPOC – the Technical Point of Contact is an individual from SEA 92L6 who will be assigned to the development project to assist with the interpretation and execution of requirements as specified in the Sponsor and Developer Guides.

NOFORN – a security designation which allows no access to the server by foreign nationals

Task Force Web – provides oversight in the effort to ensure that operational and business processes are conducted worldwide via interconnected and interoperable web-based IT systems

NMCI Internet Strike Force – is a team of industry experts partnering in the NMCI initiative. The Strike Force will assume the responsibility for providing all assets and services needed to ensure the transmission of voice, video and data across the Department of the Navy.

XML – Extensible Markup Language is a developing standard for data interchange.

HTML – Hypertext Markup Language document format used for web page files.

TCP/IP – Method for moving raw data.

Java – a simple, object-oriented, robust, secure, architecture-neutral, portable, dynamic, general-purpose programming language

JavaScript – Netscape's simple, cross-platform, World-Wide Web scripting language.